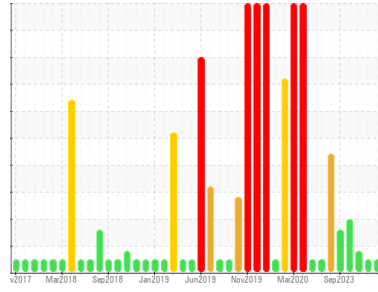


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Fwd Machinery Space [450323108]**

Machine Id

**Thruster Fwd Aft - Seal Oil System (S/N Sample Tag CL-06005-S3)**

Component

**Sealing System**

Fluid

**PETRO CANADA ENERGOL GR-XP ISO 150 (65 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC</b>	PC	PC0080538
Sample Date	Client Info	<b>21 Apr 2024</b>	26 Feb 2024	29 Jan 2024
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	ATTENTION

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
PQ	ASTM D8184*	<b>0</b>	0	0	
Iron	ppm	ASTM D5185(m) >100	<b>&lt;1</b>	1	1
Chromium	ppm	ASTM D5185(m) >3	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >8	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >3	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185(m)	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m) >3	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185(m)	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

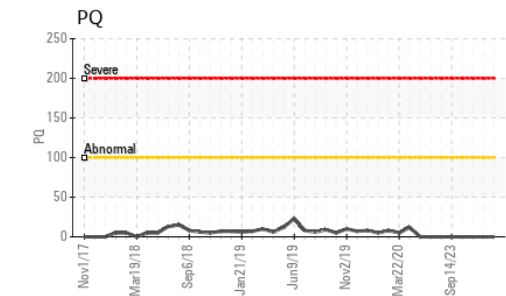
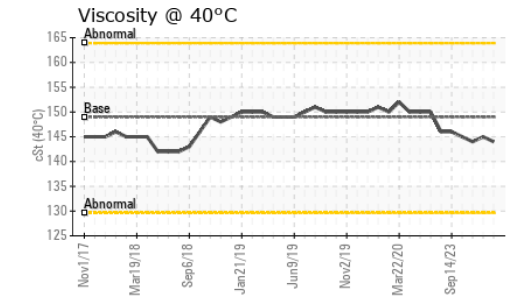
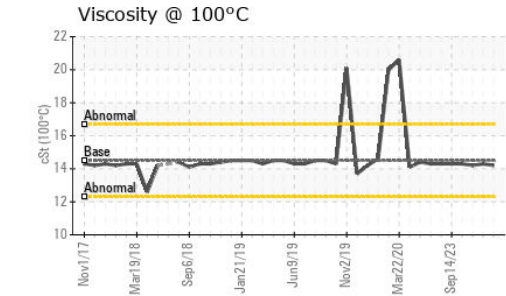
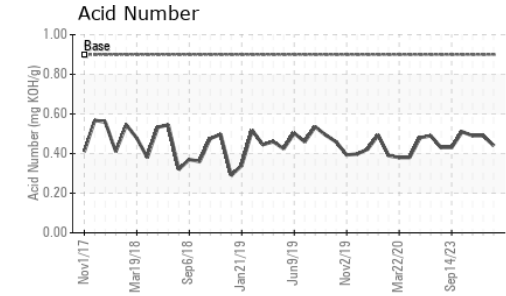
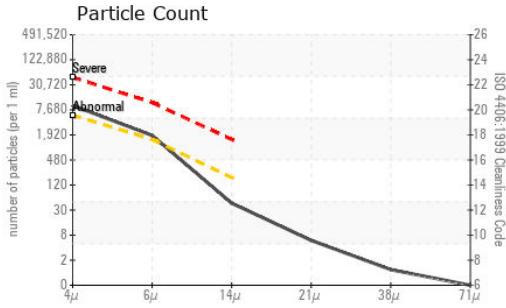
## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	<b>14</b>	14	14
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	<b>1</b>	12	4
Phosphorus	ppm	ASTM D5185(m)	<b>158</b>	174	171
Zinc	ppm	ASTM D5185(m)	<b>5</b>	5	4
Sulfur	ppm	ASTM D5185(m)	<b>8017</b>	10126	10557
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	<b>2</b>	4	4
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	2	2
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC  
**Lab Number** : 02634773  
**Unique Number** : 5775926  
**Test Package** : MAR 2 ( Additional Tests: KV100, PQ, PrtCount, VI )  
**Received** : 10 May 2024  
**Tested** : 13 May 2024  
**Diagnosed** : 13 May 2024 - Kevin Marson

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>8487</b>	12555	34729	
Particles >6µm	ASTM D7647	>1300	<b>1634</b>	2309	7213	
Particles >14µm	ASTM D7647	>160	<b>39</b>	95	256	
Particles >21µm	ASTM D7647	>40	<b>5</b>	26	40	
Particles >38µm	ASTM D7647	>10	<b>1</b>	4	1	
Particles >71µm	ASTM D7647	>3	<b>0</b>	1	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>20/18/12</b>	21/18/14	22/20/15	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.9	<b>0.44</b>	0.49	0.49

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*		<b>NEG</b>	NEG	.2%
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	149	<b>144</b>	145	144
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	<b>14.2</b>	14.3	14.2
Viscosity Index (VI)	Scale	ASTM D2270*		<b>95</b>	95	95

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						